Serial No: 09/964,737

Docket No: 29287-124

## IN THE CLAIMS:

Please cancel claims 4, 5 and 7 and amend claims 1 and 6 as follows:

1. (Currently Amended) A manufacturing method of a thin film magnetic head comprising:

forming a lower magnetic core,

forming an end portion of an upper magnetic core above said lower magnetic core, forming a rear portion of said upper magnetic core by using a negative resist or an electron beam resist to form a frame for plating above said end portion of said upper magnetic core,

covering an end portion of said upper magnetic core with a non-magnetic protective film, and

removing said non-magnetic protective film from an upper part until said upper magnetic core is exposed,

wherein a front end of a connection area in which said end portion is connected to a rear portion of said upper magnetic core is located between a face opposed to a medium and a position defining a gap depth;

wherein said end portion of said upper magnetic core has a first face emerging at the face opposed to a medium.

wherein said rear portion of said upper magnetic core has a second face not emerging at the face opposed to the medium, which is connected to said end portion of said upper magnetic core at a position of said second face,

wherein a distance between said first face and said second face is 0.2 to  $1.5 \mu m$ , and the track width of the end portion of the upper magnetic core is  $1.5 \mu m$  or less.

PATENT

Serial No: 09/964,737

Docket No: 29287-124

2. (Previously Presented) A manufacturing method of said thin film magnetic head according to claim 1, wherein said non-magnetic protective film is removed by a polishing process or an etch-back process using dry etching.

3. (Previously Presented) A manufacturing method of said thin film magnetic head according to claim 1, wherein said non-magnetic protective film is removed by using one or more kinds of gases selected from CF<sub>4</sub>, C<sub>4</sub>H<sub>8</sub>, CH<sub>3</sub>, BCl<sub>3</sub>, Cl<sub>2</sub>, SiCl<sub>4</sub>, Ne, Ar, Kr, and Xe.

## 4 - 5. (Canceled)

and

6. (Currently Amended) A manufacturing method of a thin film magnetic head comprising:

forming a lower magnetic core,

forming an end portion of an upper magnetic core above said lower magnetic core,

forming a rear portion of said upper magnetic core by using a negative resist or an electron beam resist to form a frame for plating, above said end portion of said upper magnetic core,

wherein said end portion of said upper magnetic core has a first face emerging at the face opposed to a medium,

wherein said rear portion of said upper magnetic core has a second face not emerging at the face opposed to the medium, which is connecting to said end portion of said upper magnetic core at a position of said second face.

wherein a distance between said first face and said second face is 0.2 to 1.5 μm, and the track width of the end portion of the upper magnetic core is 1.5 μm or less.

## 7. (Canceled)